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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,887	06/24/2003	Tomoyoshi Kamoshita	D-1495	1316
32628	7590 03/14/2006		EXAM	INER
	A BERNER AND PA	JONES, MELVIN		
	SUITE 300, 1700 DIAGONAL RD ALEXANDRIA, VA 22314-2848		ART UNIT	PAPER NUMBER
			3744	
		DATE MAN ED 02/14/0007		

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/601,887	KAMOSHITA ET AL.				
Office Action Summary	Examiner	Art Unit				
	Melvin Jones	3744				
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the	correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D.  - Extensions of time may be available moder the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period.  - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION  136(a). In no event, however, may a reply be to will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDON	DN. timely filed m the mailing date of this communication. JED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 24 J	lune 2003.					
2a) This action is <b>FINAL</b> . 2b) ⊠ Thi	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.					
3) Since this application is in condition for allowa	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims	•					
4)⊠ Claim(s) <u>1-16</u> is/are pending in the application	ı. ·					
•	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) 7-16 is/are allowed.						
6)⊠ Claim(s) <u>1</u> is/are rejected.	☑ Claim(s) <u>1</u> is/are rejected.					
7)⊠ Claim(s) <u>2-6</u> is/are objected to.	☑ Claim(s) <u>2-6</u> is/are objected to.					
8) Claim(s) are subject to restriction and/	or election requirement.					
Application Papers						
9) The specification is objected to by the Examin	er.					
10)⊠ The drawing(s) filed on <u>24 June 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11)☐ The oath or declaration is objected to by the E	xaminer. Note the attached Office	ce Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summa					
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08</li> </ul>	Paper No(s)/Mail  Notice of Informa	Date I Patent Application (PTO-152)				
Paper No(s)/Mail Date <u>7/12/05, 6/24/03</u> .	6) Other:	•••••				

#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipate by Royal et al. (6,269,658). Royal discloses a cryogenic rectification system with pulse tube refrigeration and comprising: pulse tube refrigeration system (76) whereby it is cooled by the passage of refrigeration from the pulse tube refrigeration system into a heat exchange fluid such as argon, a pressure column (10) whereby nitrogen-enriched vapor is withdrawn from a upper portion and oxygen enriched liquid is withdrawn from the lower portion of said column in a stream (62).

## Allowable Subject Matter

### Claims 7-16 are allowed over the prior art of prior.

Claims 2-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Jones whose telephone number is (571)272-4810. The examiner can normally be reached on Monday- Wednesday & Friday.

Application/Control Number: 10/601,887 Page 3

Art Unit: 3744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Melvin Jones Primary Examiner Art Unit 3744

MELVIN JONES
PRIMARY EXAMINER